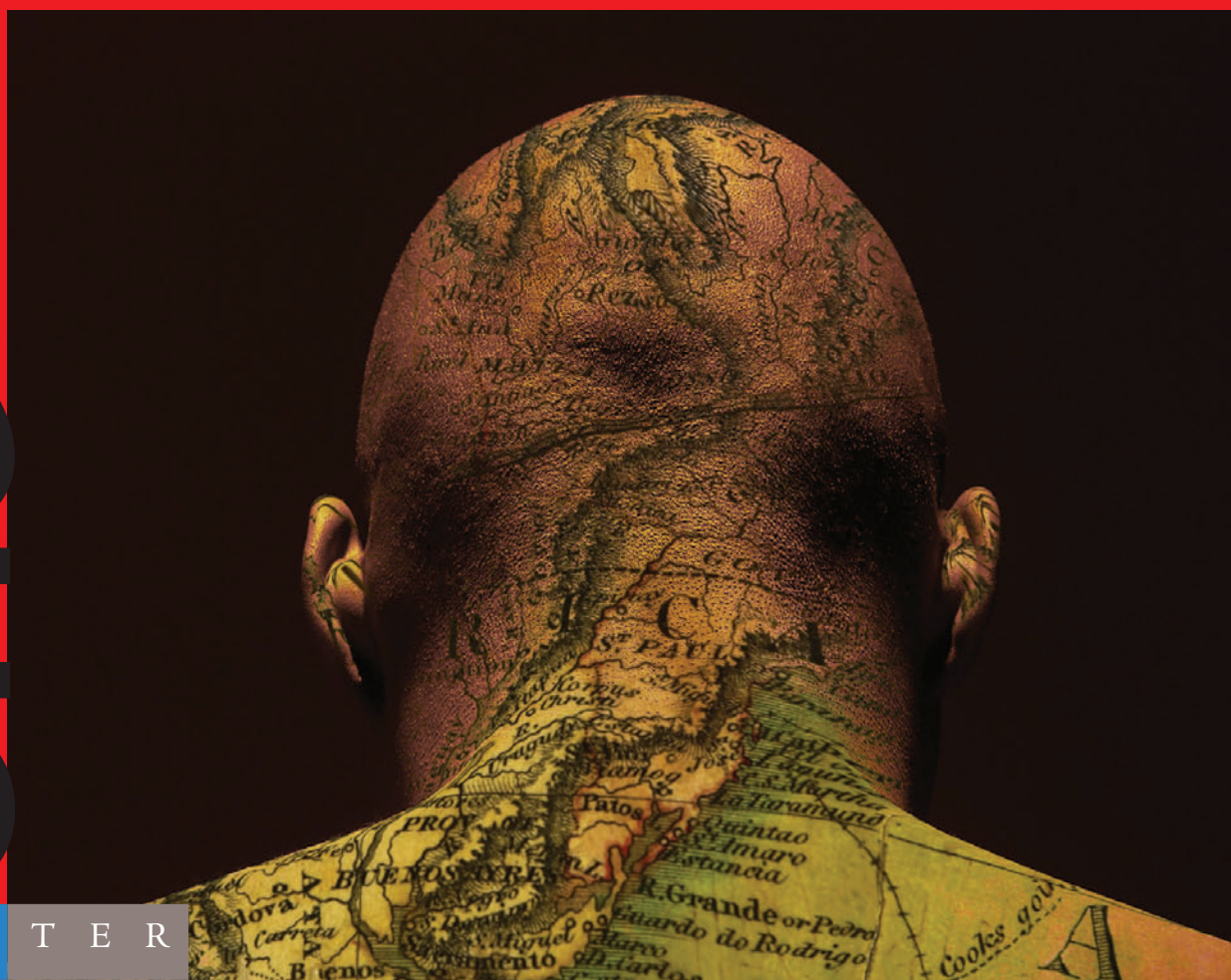


C H A P T E R

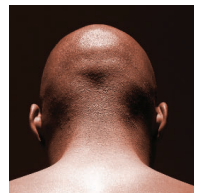


Tools for Building Your Masterpiece

Right-brainers are typically artistic *in some fashion, and this book is for people who, like me, enjoy the journey. Although right-brainers are constantly chiding left-brained people to think outside the proverbial box, a right-brainer who works with a piece of software such as Adobe Photoshop CS4 needs to spend some time in the box, getting to know the tools and techniques that will lead to masterpieces at some future date.*

This chapter discusses a few of the most important techniques and tools that are used throughout the book, as well as some that are just plain good to know: blending modes, extractions, layer masks, those all-powerful adjustment layers (made even more powerful in CS4 than in earlier releases), displacement maps, and the Blend If feature. I can't teach you to be an artist, but I certainly can show you some of the tools I use that you might find helpful in your own work. Let's take a look at some of these key techniques.

The images referenced as source files for these techniques can be found in the Chapter 1 Source Files folder on this book's CD.



Using Blending Modes

For right-brainers, blending modes open entirely new doors that perhaps you haven't considered. For example, you can quickly collage two images by placing them in layers and experimenting with the blending modes for just the right mix.

Blending modes for layers simply tell Photoshop how the pixels in one layer will interact with the pixels in the layers beneath. You knew that already, though, right? Sure you did; at least, you probably already know if you have spent any time with Photoshop. As you work through the next few chapters, you'll use various blending modes. For each new mode that's introduced, you'll find a short definition.

Instead of rambling on about how you *should* use them, I'll show a few examples of how you *can* use them to your advantage.

Blending Landscapes



From this book's CD-ROM, open the images `mesa.jpg` and `sunset.jpg` (see Figures 1.1 and 1.2). Here you have two images of similar tone and theme. You might consider what these two photos would look like merged. To check that out, have one photo serve as the foundation image, and paste the other photo into a new layer in that document (see Figure 1.3).

Each blending mode, when applied to the sunset layer, will give a different result. You might think that the Overlay mode would produce a good mix of the two images, so check it out! Figure 1.4 shows the image with the sunset layer set to Overlay.

Personally I love the results of this blend: the addition of the clouds and color variation to the mesa's backdrop is simply stunning. This wouldn't be much of an experiment if we stopped here, however.



Figure 1.1 Choose images to blend together. Here's the first image.

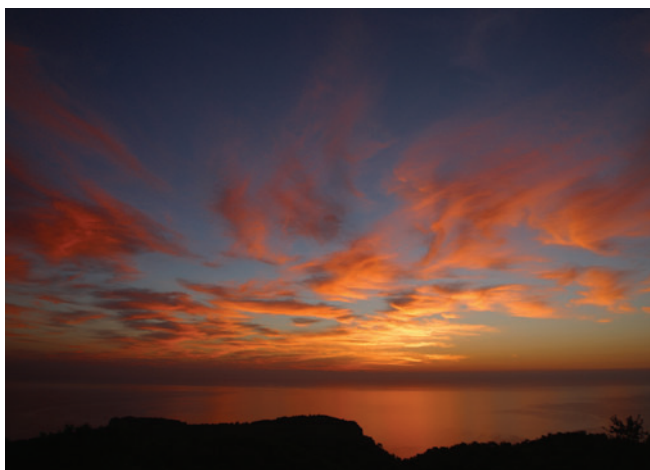


Figure 1.2 The second image

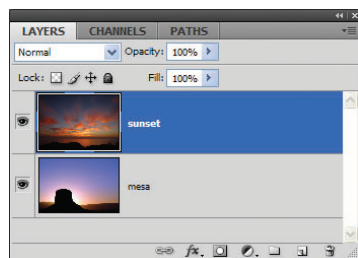


Figure 1.3 Place both images into the same document for merging.



Figure 1.4 Sunset layer blending mode set to Overlay

Experimenting with Blending Modes

Try another test, this time selecting Darken for the blending mode of the sunset layer (see Figure 1.5). This results in a very deep melding of the two images. The outline of the mesa is clearly defined still, but we see more characteristics and features of the sunset layer. The primary thing that strikes me as being wrong with this version is it is simply too dark. It makes sense: the sunset layer is in Darken mode, so those areas that are darker than the layer beneath will be darkened. Those lighter will not. The clouds are better defined, but we lose the bright appeal of the previous example.

Let's give it another shot. Follow along and see what you come up with. Change the blending mode for the sunset layer to Soft Light (see Figure 1.6). That is a good mix for achieving definition between the two photos. The colors are less harsh, and we still have good definition in both the mesa and the clouds.



Figure 1.5 Sunset layer in Darken blending mode



Figure 1.6 Another version using Soft Light blending mode

The Soft Light blending mode takes a look at the blend color and either lightens or darkens that portion of the image, depending on whether the color is lighter or darker, respectively, than 50% gray. If the light source, or blend color, is lighter than 50% gray, the effect is as though that portion of the image were dodged—darker makes it look as though it were burned. Painting with Black or White in the Soft Light blending mode will darken or lighten, but will not result in true black or white. Rather, it will result in an increase of light or shadow.

When you find a blending mode that does basically what you want it to accomplish, as I've done with this example, you may want to keep the blending mode and finish the corrections with other Photoshop features. No one tool or technique is a cure-all: it usually takes a combination of tools and commands working together to get what you are looking for.

Notice the jet stream trailing off in the upper-left corner. This can be wiped away to help maintain the Old West feel of the final shot. One of the quickest ways to isolate and replace the offending area is to use the Spot Healing tool on the mesa layer (see Figure 1.7). Figure 1.8 shows out final blended image.



Figure 1.7 Spot Healing quickly replaces the offending jet stream with the blue background surrounding the aircraft.



Figure 1.8 Final blended image

As you work through the book, blending modes will become second nature. What I want you to take away from these brief examples, in particular for merging layers, is that your choice of blending mode will dictate whether a piece fails or succeeds. You have many to choose from, but usually one or two come close. You want to get to the point where you intuitively know what additional tools in conjunction with the blending mode will give you the results you are looking for. Photoshop isn't out to get you; it is only as smart and creative as you allow it to be. Photoshop is the toolbox; you are the artist.

Extracting an Image from a Background

I belong to several Photoshop-related forums and lists online (a favorite hangout of mine is PhotoshopCAFE at www.photoshopcafe.com), and it amazes me how many posts start with the heading “How do I extract an image from a background?” Indeed, Photoshop doesn't give the casual user an easy answer, as there is a number of ways to perform this very task. The best method for the task depends on a couple of factors: the job at hand (the object being extracted, the background the object resides in) and the user's knowledge of the software or preferred method.

If the background is a solid color, you can use the Background Eraser tool with passable results, but many in the graphics world consider this approach to be cheating in some way. If it works, I say go for it, but rarely does that method work to satisfaction.

In the previous editions of this book, I demonstrated how to perform extractions using the Extract feature, which as of this writing has been removed for Adobe Photoshop CS4. I'm mixing things up a bit with this update, and will instead demonstrate extracting objects or subjects using the Pen tool.

Removing Objects from Their Background



Let's get started and remove an object from its background. Open the image `apple.jpg` from this book's CD (see Figure 1.9).

Let's pull the apple off the background and give it a new home. Duplicate the Background layer. Create a new layer between the two apple layers and fill it with white. Rename the Background Copy **Extract** (see Figure 1.10).



Figure 1.9 The apple will serve as our extraction model.

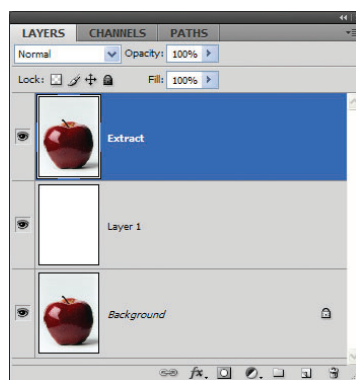


Figure 1.10 Set up the Layers panel for extracting.

Select the Pen tool in the Toolbar. On the Options bar click the Paths icon; it is the second icon from the left at the top of the screen (see Figure 1.11). Click the mouse anywhere along the edge of the subject (in this case, the apple) to serve as a starting point. Move along the edge of the object a short distance in either direction and click to add another point. If the path between the two points rests on a curve on the object's edge, hold down the mouse when you create the second point and drag it further along the edge a short distance. This will cause the straight path to slowly conform to the curve of the apple's edge.

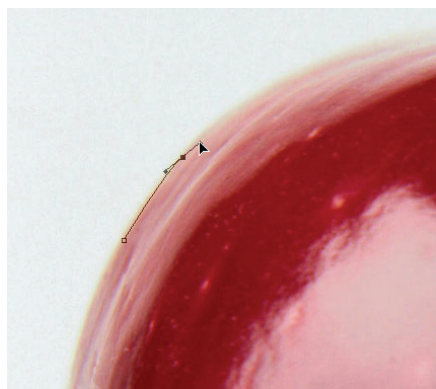


Figure 1.11 Creating a path can be tricky but gets easier with practice.

Work your way around the entire apple, including the stem. You may have to exercise a little guesswork in the areas of extreme highlight or shadow, so work the path to make the shape appear natural. When you have reached the starting point, click on the first point to close the path (see Figure 1.12).

After you have outlined the entire apple, open the Paths panel. You will see a new Work Path resident in the shape of your apple (see Figure 1.13). The next step is to convert the path into a selection, which you do by clicking the Load Path As A Selection icon at the bottom of the Paths panel (the third icon from the left) or by opening the Paths panel menu and selecting Make Selection from the list (see Figure 1.14).

Once the “marching ants” appear around the apple, you can copy the apple and paste it into a new document for later use. To copy the apple, press **⌘/Ctrl+C** or select **Edit → Copy**. Create a new document (**File → New** or **⌘/Ctrl+N**), which will be the size of the apple by default. Ensure the Background is set to Transparent to avoid having to extract the apple again in the future in case you save it in a nonlayered format (see Figure 1.15).



Figure 1.12 After working the path around the object, click the starting point to close the path.

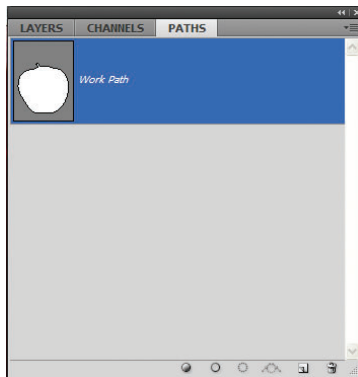


Figure 1.13 The new path resides in the Paths panel.

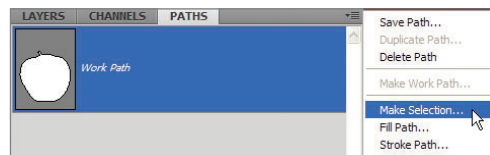


Figure 1.14 Convert the path into a selection.

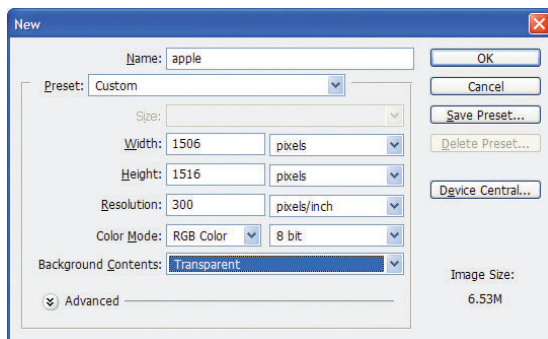


Figure 1.15 When you copy the object and create a new document to place it in, by default the new document fits the dimensions of the object.

Paste the apple into the new document (⌘/Ctrl+V; see Figure 1.16). If you would like to save this image for later use, I recommend saving it as a PNG file. This format will retain the transparent background so you can easily drag and drop the object into any photo environment you choose as well as resize it to fit your needs.



Figure 1.16 The apple in a new transparent background

Have you ever created a new document with a transparent background and find it appears all white? Where are the tiny gray squares that we all know and love? The checker pattern expected to delineate transparency is actually still there. Photoshop CS4 at times defaults to a variation of light gray/dark gray squares so it is difficult to see that the document background is indeed transparent. To change this, select **Edit** → **Preferences** → **Transparency And Gamut**; Mac users will find **Preferences** under the **Photoshop** menu. From here, you can change the color of the squares simply by clicking on one (there are two shown) and selecting a slightly darker shade of gray. Now your transparent backgrounds will have the little alternating checkers once again.

A New Home



The true test comes when you try placing your object in a new setting. Take a look at Figure 1.17. What if we replace the eight ball with the newly extracted apple? To play along, open the `eightball.jpg` image found on the book's CD. With the newly extracted apple image open (the one resting on the transparent background), drag and drop the apple into the eight ball file and place the apple over the pool ball with either the **Move** tool or the arrow keys (see Figure 1.18). The **Move** tool needs to be selected in order for the arrow keys to work.



Figure 1.17 Eight ball, corner pocket



Figure 1.18 The apple in a new environment

Choose Edit → Transform → Scale and resize the apple to better conform to the size of the eight ball without leaving any of the ball showing (see Figure 1.19). Once it's in place, accept the transformation.

You may want to use the Burn tool to darken the lower edge of the apple as well as the ground beneath it to better conform it to the image. You may also add a shadow to the grass with the Burn tool to achieve a bit more realism (see Figure 1.20).



Figure 1.19 Resize as needed.



Figure 1.20 Shadowing with the Burn tool



Figure 1.21 Create a feathered selection.

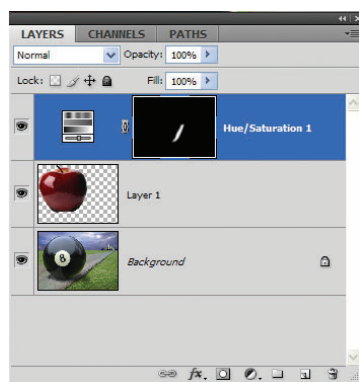


Figure 1.22 The mask helps isolate a region to be corrected or edited.

Let's do one more little trick before we move on. As the apple leaves a shadow on the grass, the grass in turn should leave a reflection on the apple. We can simulate this by generating a feathered selection on the right side of the apple with the Lasso tool, then creating a Hue/Saturation adjustment layer and forcing a green tonal change to that area.

To see what I mean, select the Lasso tool. On the Options bar change the Feather radius to 20px. Draw a selection along the lower-right region of the apple's edge, as seen in Figure 1.21. You can move the selection into place with the arrow keys so the selection roughly follows along the edge of the object.

At the bottom of the Layers panel, click the Create New Fill Or Adjustment Layer icon. Choose Hue/Saturation from the menu. Any adjustments will be focused on the selected area thanks to the adjustment layer's mask (see Figure 1.22).

New in Photoshop CS4 are the Adjustments and Masks panels, which give you more control over the adjustments made and the areas of the layer affected.

With the adjustment layer in place, double-click it in the Layers panel to open the Adjustments panel. Move the Hue slider until you get a subtle green reflection (see Figure 1.23). Once the adjustment is made, you should have replaced the eight ball with the apple, complete with enhanced shadows and colored reflection (see Figure 1.24).

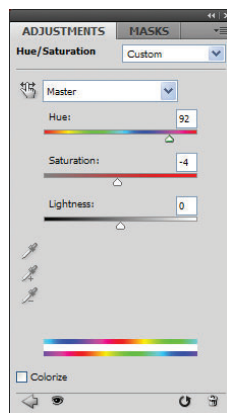


Figure 1.23 The Adjustments panel gives you great control over your edits.



Figure 1.24 The apple in its new home

Granted, the final image is a bit “far out,” but the extraction itself worked like a charm. The Path tool does take a bit of practice, but there is nothing like it for giving you crisp, clear edges for your extracted objects.

Working with Layer Masks

As you delve into all the nifty things Photoshop allows you to do to your images, you may have already played a bit with layer masks. Layer masks, at their most basic, are simple bitmaps attached to a layer. The black in the bitmap, or mask, hides the pixels of the standard layer, and the white reveals those pixels.

As mentioned in the previous section, Photoshop CS4 has added a Masks panel that allows you to control density, feather, color range, and other mask features. We will be looking at these features throughout the book.

First, let’s look at some possible uses of masks. What benefit do you see from being able to hide portions of a layer? Here’s one practical application using two layers with the same pixel information: you could correct the top layer or do some fancy special effect to it and then mask away portions of the layer so the correction or effect seems to occur only on certain portions of the image. Layer masks are also excellent for merging photos, either gradually or starkly, so collages are a breeze. Masks even go so far as to allow a savvy right-brainer to turn any photograph into a seamless pattern or a floor tile.

Let me demonstrate what I’m talking about.

Dynamic Masking

I'll begin with a practical example. If you have perused any medium to large electronics store online, in particular those that sell mid- to high-end televisions or computers, you may have noted that many display their products with an image on the screen. It is difficult to take a photograph of a television with the screen active and have it turn out with ad-quality resolution on the display. Rather than leave the screen blank, many retailers will use Photoshop to place an image on the screen to make the product shot more compelling. Layer masks can achieve this goal in quick order.



For this example, open `monitor.jpg` (Figure 1.25) and `tech.jpg` (Figure 1.26).



Figure 1.25 A standard computer-monitor product shot



Figure 1.26 A techno-collage to fill the screen

To see how masks can help when working with these two images, you first need to place them in the same document. To do this, simply copy the second photo and paste it into the first. They are different sizes, so choose **Edit** → **Transform** → **Scale** and resize the new layer to match the size of the first. In this instance, you need to be concerned only that the monitor screen is overlaid with the second image (see Figure 1.27).

When working with a lot of layers, it is smart to give your layers descriptive names. You're working with only two layers in this example, but it is still a good habit to establish, so rename the layers **Monitor** (the base layer) and **Tech**. The top layer is where the masking will take place; you can create that mask now by selecting the **Tech** layer and clicking the **Add Layer Mask** icon at the bottom of the **Layers** panel (see Figure 1.28).



Figure 1.27 Transform the top layer to match the monitor screen size.

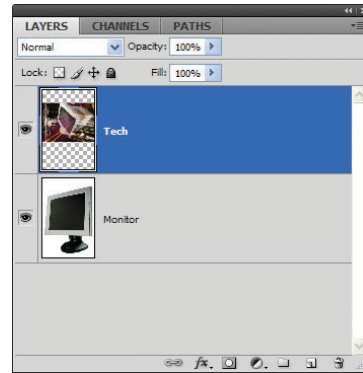


Figure 1.28 Renaming layers can help organize your edits.

As a demonstration of how masks help in this instance, you can quickly place the techno-collage on the monitor without overlapping beyond the screen's border. This is a piece of cake because the monitor face is roughly the same color across the object.

There are a few tools you can use to generate a selection of the screen. The Polygonal Lasso and Magnetic Lasso tools are safe bets, and even using the Select → Color Range dialog box would provide moderate success. Looking at the monitor, with its clear, concise edges on the border of the screen, you might see that the quickest and easiest way to generate the needed selection most likely resides in the Magic Wand tool and its default settings. Ensure that the Monitor layer is active in the Layers panel and use the Magic Wand to generate your selection by clicking directly on the screen. If the entire screen doesn't select, increase the Tolerance value in the Options bar to 40 or so (see Figure 1.29).

When the selection is generated, return to the Tech layer and create the mask. The black in the mask hides the portions of the layer outside the screen area, while the white area in the mask reveals the Tech layer. The effect is that the image is now displayed on the screen, as you can see in Figure 1.30.

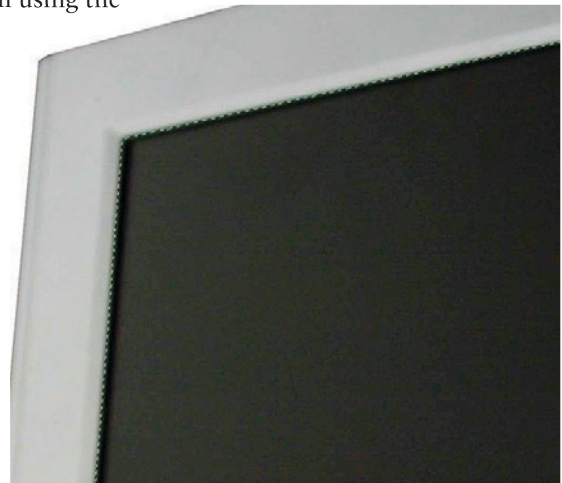


Figure 1.29 Generating a selection of the area where the second image will be applied will help you quickly place the photo in the next step.

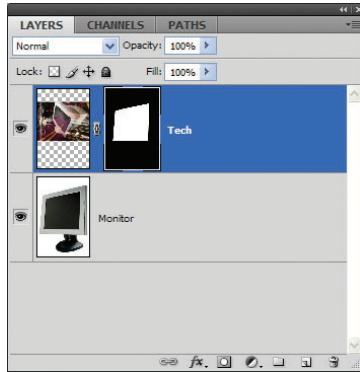


Figure 1.30 The only area in the mask that should be filled with white is the monitor screen.

If you have performed the masking technique properly, you will have a final product image with the Tech image resident only on the monitor. Any additional corrections to the mask that may be required can be performed by using the paint tools with either white or black to correct and clean up areas of the masked layer (see Figure 1.31).



Figure 1.31 Final product shot with screen image in place

Absurd Symmetry

For the digital artist, masks are frequently used to generate symmetry in a photo or working piece of art. Photographers may use masks for fine-tuning the appearance of a model; a wacky right-brainer may take things to the extreme and use one photo to create a perfect, albeit improbable, vision of beauty. Figure 1.32 (ModelShot.jpg on the CD) shows a young lady who has absolutely nothing wrong with her. Well, in the real world maybe. In the digital world, however, we can use Photoshop to give perfect symmetry. In other words, Photoshop masks can be utilized in such a way as to make the right side of the face the exact, if mirror opposite, twin of the left.

Let's see what a mask can do to enhance this photo. With a photo open in Photoshop, duplicate the Background layer. Name both layers accordingly: in this example name the layers **Model-01** for the foundation and **Model-02** for the layer to be manipulated with the mask. With the Model-02 layer selected, choose Edit → Transform → Flip Horizontal to rotate the image, and then click the Add Layer Mask icon at the bottom of the Layers panel (see Figure 1.33). By drawing a standard Black to White gradient across the mask and using



Figure 1.32 I'm ready for my close-up.

the default settings (that is, a gradual change from black to white), you'll see the photo take on characteristics of both layers (see Figure 1.34). The condition of the layer mask at this stage can be seen in Figure 1.35.

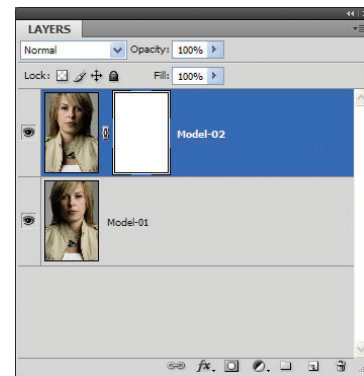


Figure 1.33 Model-02 layer flipped and the mask firmly in place



Figure 1.34 A standard Black to White gradient in the mask gives the model a surreal appearance.

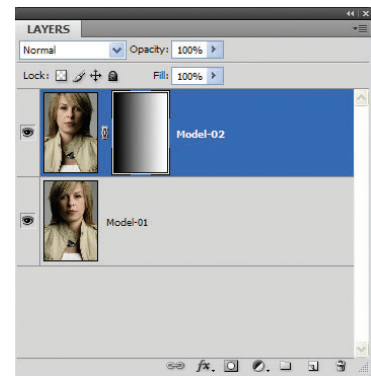


Figure 1.35 The Layers panel should look like this in this step.

The result is interesting but we can make it more so by shortening the length of the gradient to a very small area in the center of the photo rather than across the entire image. For instance, redraw the same gradient in the same mask, but this time span the width of the mouth (Figure 1.36). The result has less faded blending and gives the model the appearance of being a computer-generated female in some 3D rendering program rather than a living, breathing human (see Figure 1.37).

Figure 1.36 Narrowing the distance between the Black and White color stops in the gradient eliminates much of the transparency effect, restricting it to a narrow area.



Reversing the colors in the mask creates an entirely different rendition of the model, though in this case it tends to make her look a bit masculine (see Figure 1.38). This can be altered by moving the top layer toward the right to “pinch” her face and neck back to a more feminine appearance. You may then use the paint brush on the Layer Mask, alternating with black, white, and shades of gray, to remove or enhance certain areas such as hair, the clothing, the neckline, and so forth (see Figure 1.39). The end result will still appear a bit “out of this world,” but you get the point. This is simply an exercise in masking... and it does create some pretty interesting results!



Figure 1.38 A more realistic marriage of layers



Figure 1.37 CGI... without rendering it in a 3D program

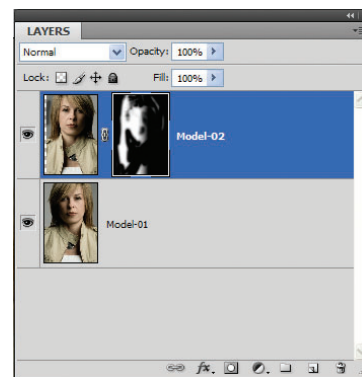


Figure 1.39 More mask manipulations

Shades of Gray



One final example demonstrates how shades of gray can be used in a mask to create character in your collages or backgrounds (see Figure 1.40). In this instance, I've taken tech-02.jpg and tech-03.jpg, and placed them in new layers in the file circuit.jpg. Grayed masks (or layer masks filled with gray) have been applied to the top two layers.

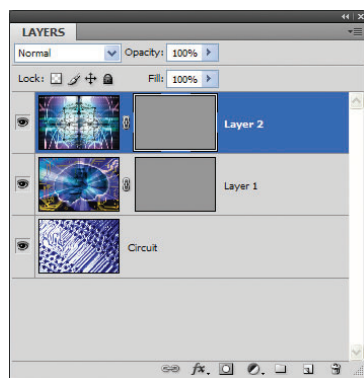


Figure 1.40 Using gray tones in a mask is a fast and easy way to create collages or to generate backgrounds with elements from multiple images.

When you look at the image with a mask applied, you'll see elements of both photos overlaying the original (see Figure 1.41). Basically this is the same effect as if you were reducing opacity or altering blending modes; however, you can use this effect in conjunction with opacity changes and blending-mode changes for variations you may not expect. I have said that before, I will say this now, and I promise I will say it again: experiment! You'll never know the effects you could have created unless you try subtly (or extremely, for that matter) altering settings in your images dreamed up by you. I can show you only a couple of variations in a few pages, but I really want you to explore your own creativity by using the tools at your disposal.

I will go deeper in detail concerning the new masking features as you proceed through the book. With such a powerful tool, you will have incredible digital art in short order.

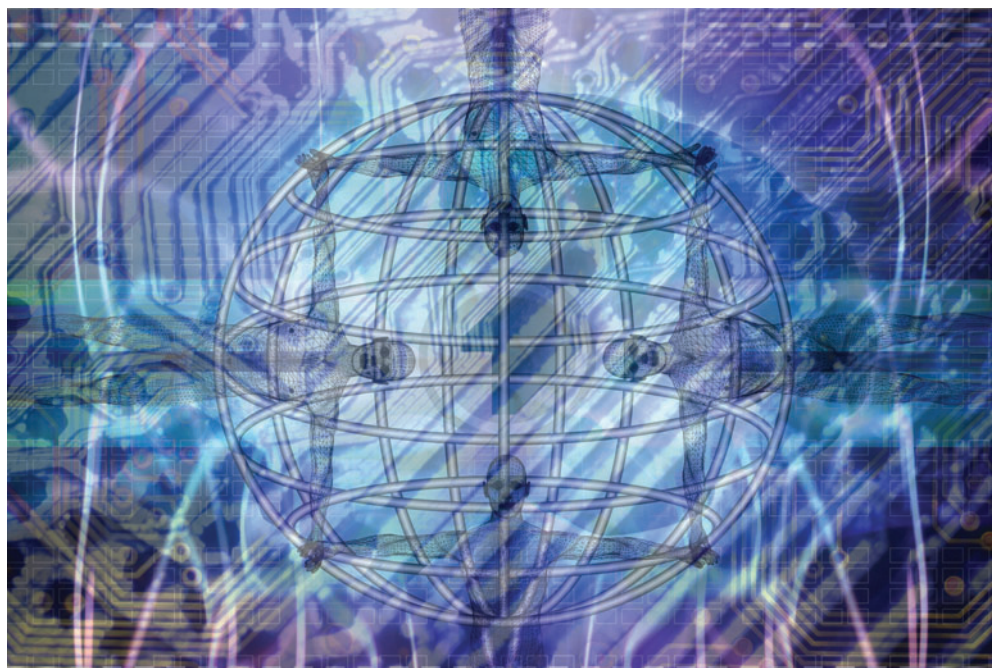


Figure 1.41 This tech background will fit in with almost any trendy, modern website.

Including Adjustment Layers

Something I have found to be incredibly useful for the past few versions of Photoshop was the inclusion of adjustment layers. Because of my interest in adding a personal touch to perfectly good photos, the final image often doesn't resemble the original except in passing. A long, long time ago, say three or four versions of Photoshop in the past, altering layer information was almost always "destructive." The actual pixels were altered, which could be troublesome if you forgot to save the original photo.

Adjustment layers have taken this concern, wrestled it to the floor, and given it a much-needed wedgie. You can now make adjustments to an entire image or aspects of certain layers without worrying about destroying the original document. You can always back-track in the history, providing you remembered to take snapshots along the way. Who has time for snapshots? Bah, humbug!

Adjustment layers work simply by creating a new layer, separate from the other layers, that will let you make your tweaks. Each adjustment layer has a mask attached so that you can "paint away" the adjustments from areas of the image where you don't want them to apply. New to Photoshop CS4 is the ability to alter the mask density, isolate colors, and even feather and further refine the mask. You can alter the mask, and thereby the adjustment layer, by painting with black, white, or gray in the mask itself. Better yet, you can go back at any time, reopen the adjustment layer, and change the settings as you like—a particularly easy task with Photoshop CS4's new Adjustments panel. Adjustment layers each have the appropriate adjustment's dialog box attached. If you adjust levels by using a Levels adjustment layer, you do so the same way you do a standard Levels adjustment. The only difference is that you are making the changes to a nondestructive layer as opposed to actual pixels.

Correcting without Corrupting

To demonstrate correcting or editing an image in a non-destructive manner, or in such a way that the original pixels are not altered, I have chosen an image reflecting the theme of this book: a model of the human brain. Open the image `RightBrain.jpg` (see Figure 1.42).

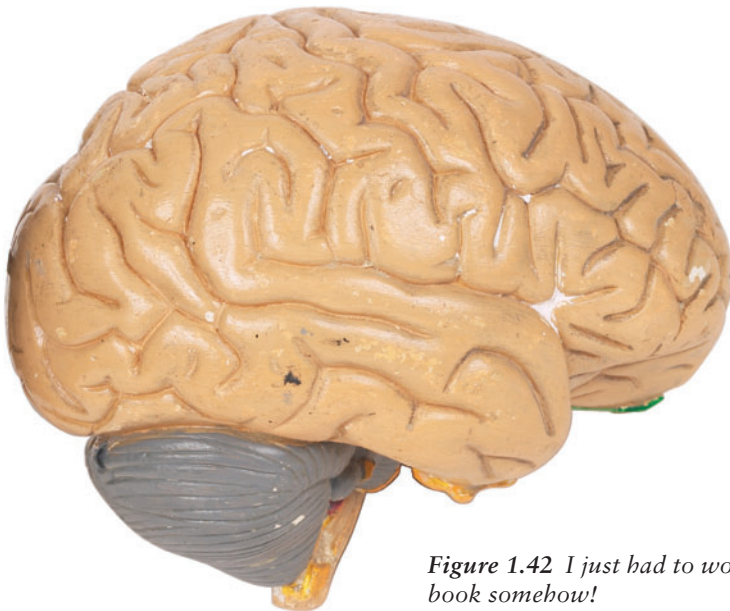


Figure 1.42 I just had to work a brain into this book somehow!

With the image open, click the Create New Fill Or Adjustment Layer icon at the bottom of the Layers panel. A menu will appear with a series of selections representing the types of adjustments you can make.

Choose Levels from the menu. A Levels adjustment layer will appear in the Layers panel (see Figure 1.43).

Select the Levels adjustments, and the Adjustments panel will change to give you a standard levels layout; you can make your Levels adjustment as you would if you were operating from the Image → Adjustments → Levels dialog box. Figure 1.44 shows a standard adjustment, moving the left slider to where the color information begins. Click OK to accept the adjustment.

I use this particular adjustment to darken the washed-out area of the brain, in particular the pink fleshy parts. I'm not sure that I want to adjust the gray area. By painting in the white mask with a black brush, you can wipe away the adjustment to that area, leaving the rest of the brain corrected (see Figure 1.45).

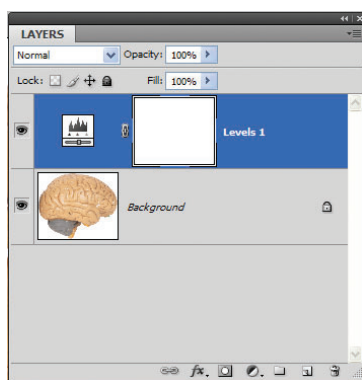


Figure 1.43 The Levels adjustment layer is in position and ready to go to work.

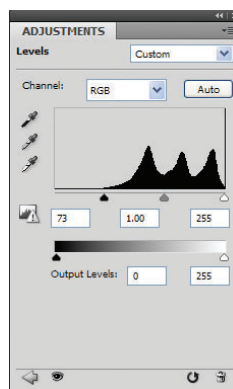


Figure 1.44 Levels are adjusted in the standard way.

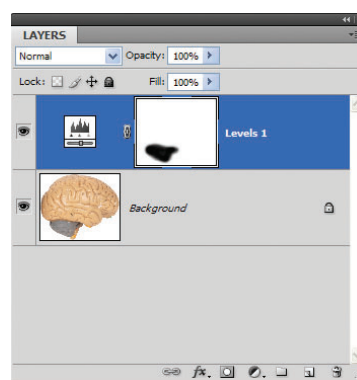


Figure 1.45 Use the paint tools to mask areas you do not want to be altered by the adjustment layer.

Let's say you would like to create a mock-up of this brain for a presentation of some sort. You have found the gray just doesn't cut it, and the brain seems flat on the projector. It's time for a color overhaul. By adding a Hue/Saturation adjustment layer that effectively colors the entire brain blue (see Figure 1.46) but then hiding most of the image except those areas you want to have colored with the mask, you can dramatically alter the appearance of the piece (see Figures 1.47 and 1.48).

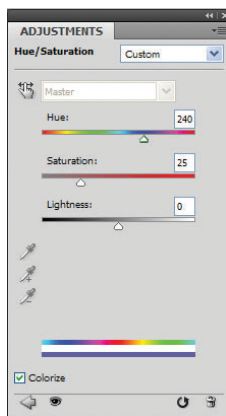


Figure 1.46 Use Hue/Saturation set to Colorize to change the hue of the entire brain to a bluish color.

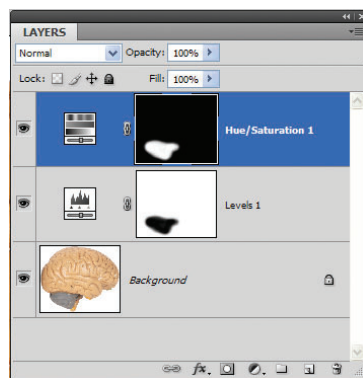


Figure 1.47 Painting may also reveal alterations to areas and leave others alone.

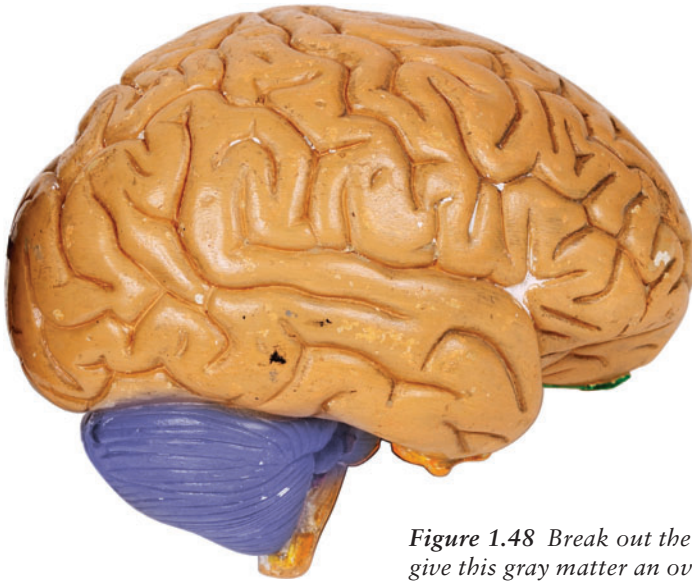


Figure 1.48 Break out the model paint! We need to give this gray matter an overhaul.

Quick Cartoons

You can also add a couple of cartoonish, or “drawn” characteristics to the image. Selecting Posterize at the bottom of the Adjustments menu lets you establish the number of levels that appear in the image (see Figure 1.49). This basically separates the image into four levels of color, giving it a drawn or painted quality (see Figure 1.50).

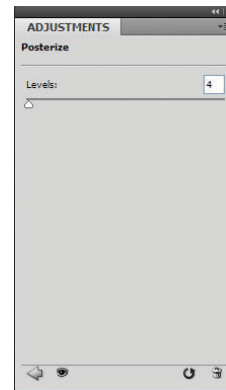


Figure 1.49 A Posterize adjustment layer gives the image a quick “painterly” quality.

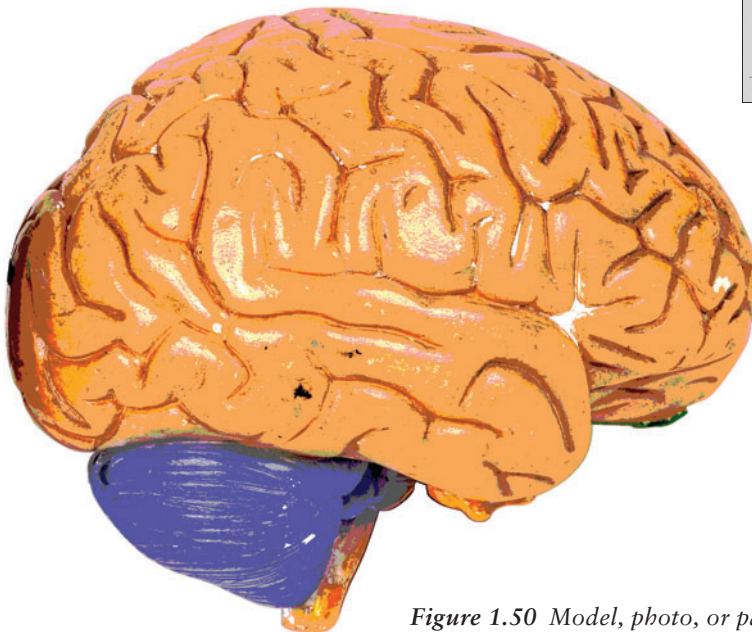
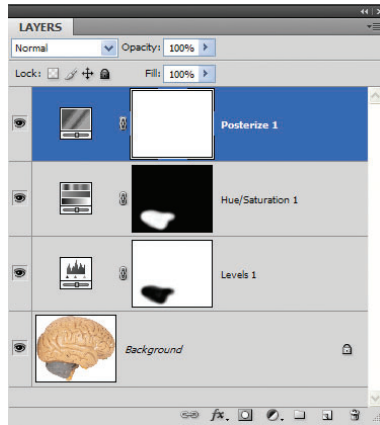


Figure 1.50 Model, photo, or painting?

Keep in mind that all of these adjustments have in no way altered the original photo layer. Simply by adding three adjustment layers, you have been able to enhance the color, repaint an area of the image, and convert it to an artist's rendering. Figure 1.51 shows the Layers panel with all four layers in place.



As mentioned in the preceding section, “Working with Layer Masks,” you can fade the effects of your adjustments with gray shades, rendering the adjustment semitransparent. Adjustment layers also have to heed the rules of blending modes, so play around a bit and have fun with them. Trust me; you have not seen the last of them in this book!

Figure 1.51 Four layers, three adjustments, and two altered masks give us the final “brain painting.”

Displacement Mapping

Have you ever looked at an image created by someone else who seems quite proud of it, but it just doesn't look right to you? You hate to say anything that could be taken as a brutal kick to their ego, but you know deep inside that if they had just taken a few extra steps—a tweak here, an adjustment there—they could have a piece that really boggles the eye. This often occurs when people try to overlay an image on top of another. If the curves and contours of the two images match, the artist is well on the way to creating art that doesn't appear “thrown together.”

Displacement maps can help. These are designed to help you conform one image to the shape of another, using the shades of gray in the image to create the distortions in the second. Displacement maps play a part in several of the techniques found later in this book, so a quick hands-on tutorial is in order for you to get up to speed.

Need Direction? Use a Map



Open the images `Back.jpg` and `Map.jpg` (see Figure 1.52).

The foundation image for this technique is the photo of a man's back. The thought here is to give him a map tattoo across his shoulders and the back of his head. The second image should work fine, but it first needs to be molded and stretched to match the highlights and shadows on the foundation image.

The best displacement maps tend to be those with the greatest variation in lights and darks. They are created from a channel that you select. Select the `Back.jpg` image. I've chosen to duplicate the blue channel and use it as the base for my map because it gives the best white-to-black ratio across the image. The highlights are brighter and the shadows are darker than the other channels. Of course, I can tweak these further by using Dodge and Burn, Brightness/Contrast, and so forth, but I prefer to choose the channel that will require a minimal amount of adjusting.

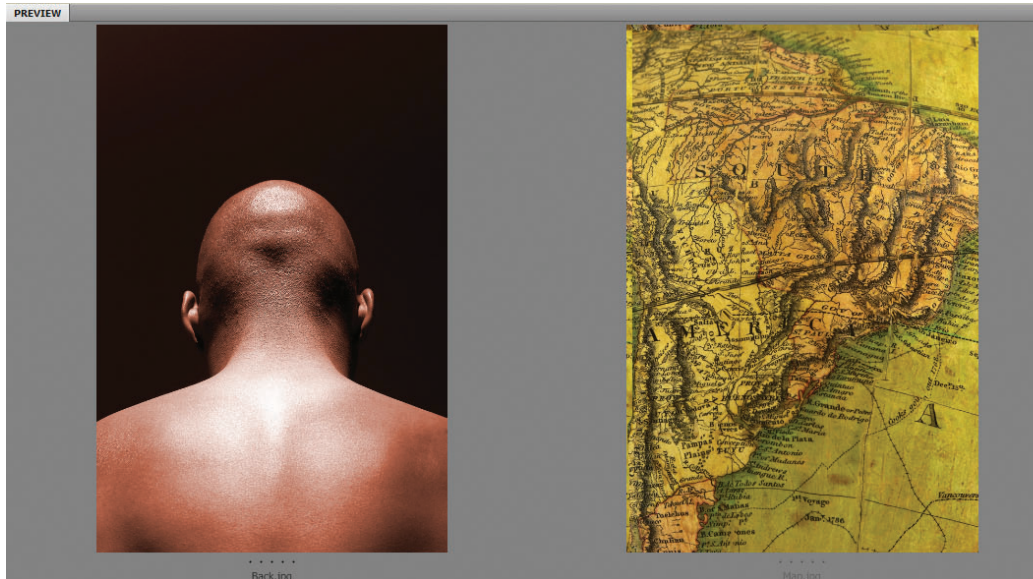


Figure 1.52 The two images as seen in Bridge

You can duplicate the blue channel by clicking and dragging it to the Create New Channel icon at the bottom of the Channels panel (second from the right, next to the Trash). A quick Contrast adjustment will help separate the whites and blacks further. I've chosen +25.

Next apply a Gaussian blur to the map channel so that, when it is used to distort the second image, there are no sharp changes and the alterations appear smoother and more transitional (see Figure 1.53).

The last link in the creation of the displacement map is to save it as a new .psd file. To do this, right-click the channel and select Duplicate Channel. In the dialog box that appears, name the new image and be sure to set the Destination setting to New (see Figure 1.54). When the file opens as a new image in Photoshop, choose File → Save As and save the new .psd file to your hard disk. Remember where you placed it, because you will need it again shortly. When you have saved the new map, you can close it in Photoshop. Return to the Back.jpg photo and delete the extra channel, as it is no longer needed.

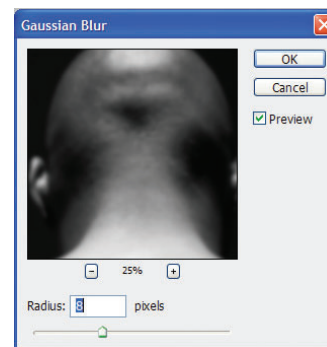


Figure 1.53 A blur helps conform the image to the map.

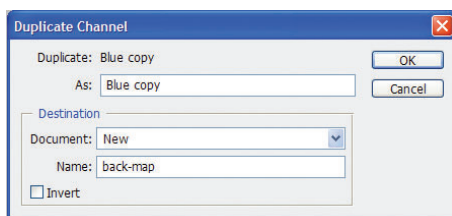


Figure 1.54 Save the new displacement map as a new document on your hard drive.

A Peek into a Later Chapter

I'm going to take this opportunity to discuss Apply Image, something I'll cover in depth in Chapter 4, "Texture, Color, and Layer Effects." Apply Image has to be one of my all-time favorite adjustments in Photoshop. I'll reserve most of my praise until later, but because it works for this effect I'll dip into it just a bit here.

Apply Image allows you to blend two images together. Sounds simple enough, until you discover the number of ways you can blend those images. The effects can be rather astounding. For this example, however, all you need to know is that both images must have the exact same dimensions in pixels. I'll discuss why in Chapter 4, but for now simply adjust the size of the Map.jpg image to match the size in pixels of Back.jpg (see Figure 1.55).

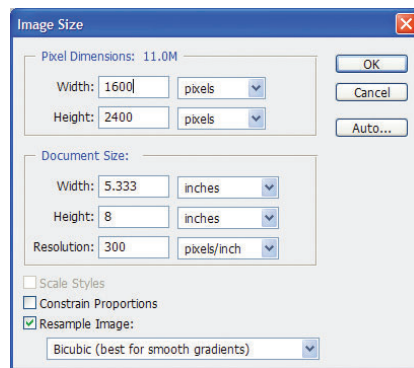


Figure 1.55 For Apply Image to work, both documents (or all that will be used in creating your final image) need to have the exact same dimensions in pixels.

You may now use the displacement map to warp the Map.jpg image. Select the map photo and choose Filter → Distort → Displace. The Displace dialog box will then ask you to what Horizontal and Vertical scale you would like the warp to take place. A setting of 10 for each should work fine in this instance, because the images are both 300 ppi. If they were of lower resolution, then lower Scale settings would be in order.

The Displace filter uses a second image (displacement map) to determine how a layer or selection will be distorted.

Also in the Displace dialog box you are asked to choose either Stretch To Fit or Tile. Stretch To Fit works best here, because there is no need to have the edges repeat. For the same reason, Wrap Around should be selected under Undefined Areas (see Figure 1.56). After these settings are selected, click OK to apply the filter.

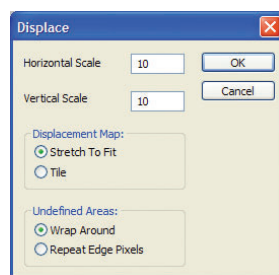


Figure 1.56 Setting up the Displace filter

But wait; there's more! Now Photoshop will ask you what .psd image it should use as a map. By default it will take you to the location on your hard disk where you saved the displacement map: simply select it and click OK. The Map.jpg image will warp to conform to the contours of the Back.jpg photo.

Now on to Apply Image. After you choose Image → Apply Image, you use the Source drop-down list at the top of the dialog box to select the image you would like to apply to your photo. For instance, say you would like a darker, more color-rich version of your current image. You could use Apply Image with the same photo set as the Source, and the Blending mode set to Darken to accomplish this (see Figure 1.57). I've applied the map to the photo of the back (see Figure 1.58).

The combination of displacement maps and Apply Image are only the tip of the iceberg. I'd love to continue this topic now, but I'll force myself to wait until Chapter 4. In the meantime, I have one more cool item to demonstrate in this chapter.

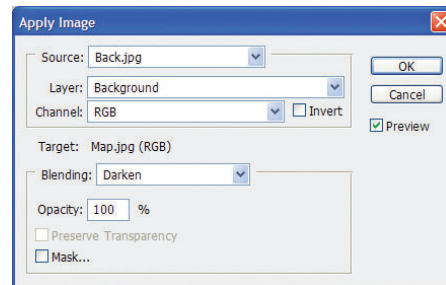


Figure 1.57 Apply Image can use the document you are working on as the Source image.

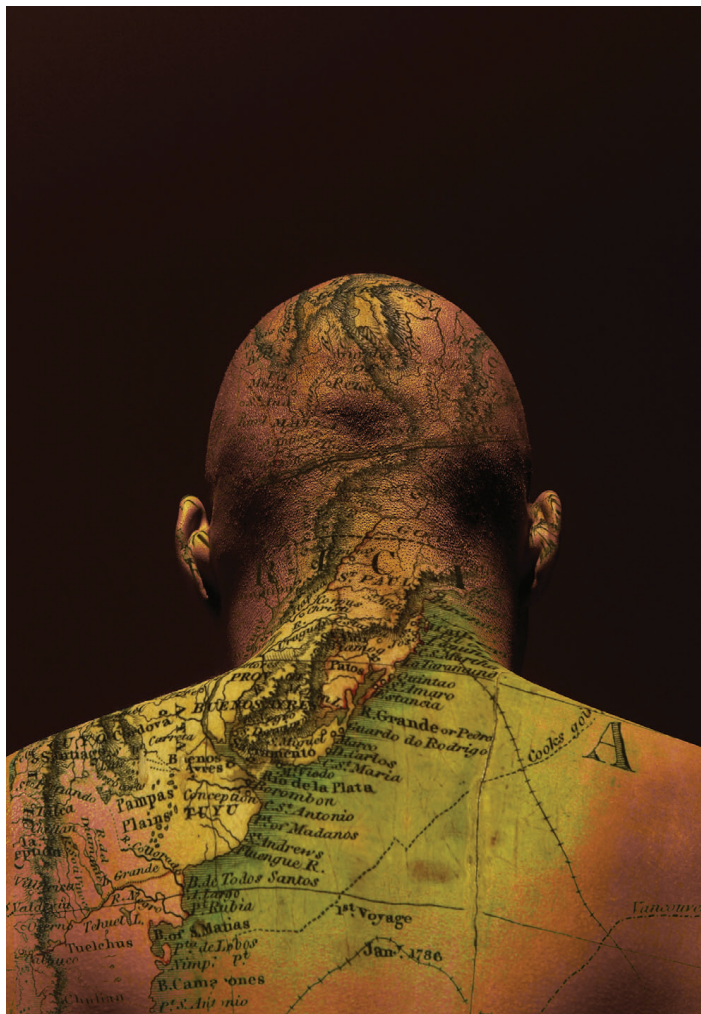


Figure 1.58 Applying an image to itself can have the effect of richer, more vibrant colors.

Discovering the Power of Blend If

My good friend Richard Lynch, whom you may know from his *Hidden Power* books, also published by Sybex, started talking to me about Blend If a few years ago. A typical conversation may have sounded like a Laurel and Hardy routine:

RL: Al, you've got to try Blend If.

AW: Blend what?

RL: Blend If.

AW: Blend if what? What am I blending and why?

RL: Blend If, man! It's the newest thing out there... you're nobody until you get on the Blend If bandwagon!

AW: Dude, I don't know what you're selling, but get it outta here or I'll call the cops. If it's that cool, it can't be legal.

Well, maybe the conversation didn't go exactly like that. But it did pique my interest, especially because his books were the only ones I'd found that even broached the topic. So after much experimenting, head-scratching, and throwing digital paper balls in the cyber-trash, I think (*think*, mind you) that I'm starting to grasp what he's been telling me all these years. At least from a right-brained point of view, I've found a few cool tricks that Blend If can be used for.

Blend If allows you to manipulate how certain colors will react to the color beneath them. Granted, this sounds similar to blending modes, but Blend If is a bit more powerful in that it gives the user control over specific colors in the layer, and not over the entire layer.



For this example, open the image `Wall.jpg`. I've already taken care of generating a displacement map of the wall and applied it to a rasterized type layer. The result is seen in Figure 1.59. Just to prove it to you, Figure 1.60 shows the Layers panel, complete with rasterized text.

Blend If is found in the Blending options of the layer styles, at the top of the left-hand Layer Style dialog box. Not only can you use this cool feature to make the text appear painted onto the wall, but with a little Photoshop magic you can make it appear as though it has aged with the wall, even wiping away those areas of text where the bricks have broken and worn away.

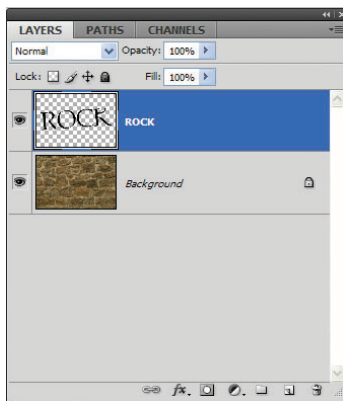


Figure 1.59 Wall photo with a rasterized type layer, pre-distorted with a displacement map



Figure 1.60 The type has already been conformed to the cracks and mortar in the wall image.

To follow along, create a displacement map as we did in the previous tutorial. Generate a text layer, rasterize it, and displace it with the map. Now you are at the point I am with this project.

With the text layer selected, click the FX icon at the bottom of the Layers panel. When the styles menu expands, select Blending Options from the top of the menu. The dialog box in Figure 1.61 appears.

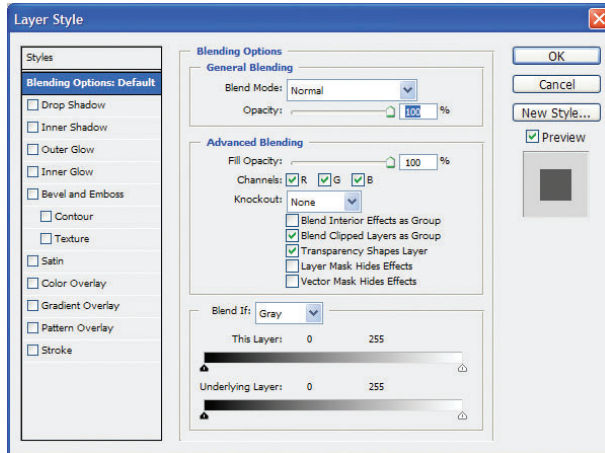


Figure 1.61 Default Layer Style dialog box with no style settings yet in place

You need not worry about drop shadows or bevels for this technique. On the lower half of the current window is an area called Advanced Blending. This is where all of the cool Blend If things take place. For instance, I've set Knockout to Shallow. Blend If defaults to gray, so that drop-down can be left alone for now; it is the highlights and shadows I'm concerned with.

At the very bottom is a slider area called Underlying Layer. This means is that if the Wall layer is black, white, or a varying shade of gray, moving the sliders will render portions of the type visible, semitransparent, or invisible. Each slider (right and left) can be split in two by holding down the Option/Alt key and click-sliding it either left or right. This allows you to control the intensity and separation of the blend on your text as it attempts to match the luminosity of the wall. With the sliders in the positions shown in Figure 1.62, the type takes on the faded and aged characteristics shown in Figure 1.63.

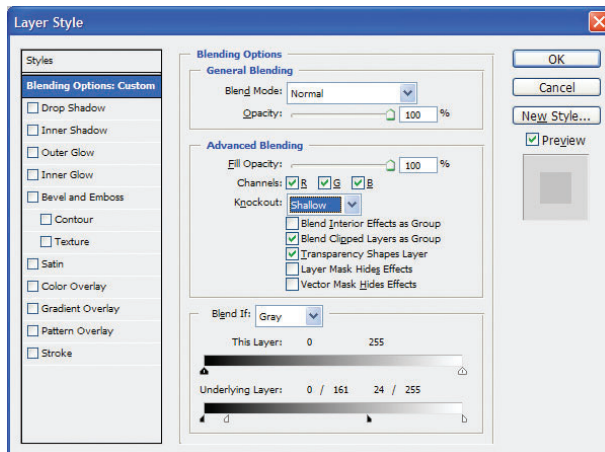


Figure 1.62 Blend If works on a series of sliders that can be divided to give you more control over the blend.



Figure 1.63 The text takes on the aged characteristics of the wall beneath.

You can also manipulate the color channels with Blend If. For instance, there is a hint of red in the bricks. You can further age the text by selecting Blend If: Red and adjusting the Underlying Layer sliders as seen in Figure 1.64. Figure 1.65 shows a close-up of the text after this adjustment. You could almost swear that the text was paint that has been around nearly as long as the building, and not simply a type layer altered by Photoshop!

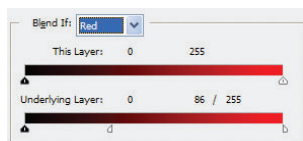


Figure 1.64 Blend If allows you to work with channels to get a more sincere meld between layers.



Figure 1.65 The text looks so real you could swear it has been there for a very long time.

Summary

I've in no way covered every cool tool you will explore in this book on your way to the perfect masterpiece, but I've covered a few of the most important ones, or at least those that will show up frequently. Again, please don't be content to simply use the images supplied with the book.

I encourage you to try these techniques on your own photos, stimulating those right-brain cells and creating your own art. In the next chapter we'll look at editing, correcting, or otherwise altering portraits, so the techniques found in these two chapters should play well together when you sit down with your own photos. I assure you it will be far more gratifying to you, and for me as well, when you have achieved some level of joy when watching your own images come to life using a technique or two you read in these pages.

I can't turn you into an artist, but I suspect there is already one inside you, lurking just beneath the surface and ready to make itself known. If I can help you to realize at least that much by showing you these techniques, then I am indeed a happy man.

So grab your coffee or beverage of choice, grab a digital stack of your own images that could use some sprucing up, and move on to Chapter 2. Get ready... get set...